



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,816	04/26/2005	Masashi Yoshimura	050403	8952

46064 7590 12/14/2007
LAU & ASSOCIATES, LLC
MICHAEL N. LAU
2121 EISENHOWER AVENUE
SUITE 503A
ALEXANDRIA, VA 22314

EXAMINER

MEHRABIAN, SEVAN

ART UNIT	PAPER NUMBER
----------	--------------

4124

MAIL DATE	DELIVERY MODE
-----------	---------------

12/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,816

Applicant(s)

YOSHIMURA, MASASHI

Examiner

Sevan Mehrabian

Art Unit

4124

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/26/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 4, 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 04/26/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The specification is objected to for containing claims numbers. The use of claim number in the specifications is improper, since claims numbers may change during prosecution.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 2, 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Reference to Claim 2

The term "and the like" in the context of the limitation "a timing gear and the like" is indefinite since it is not clear how the devices other than timing gear have to resemble the specified device to satisfy the limitations of the claim.

In Reference to Claim 6

The terms "said rotor" is indefinite since more than one motor was recited in claim 1. Also the term "the timing" is indefinite because it has been already recited in claim 4.

In Reference to Claim 7

The terms "said rotor" and "the rotor" are indefinite since the term "rotor" has been recited in claim 6.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,019,581 to von Schulz-Hausmann et al. (Hausmann).

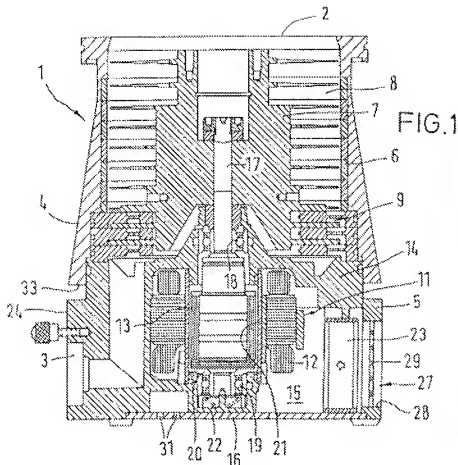
Hausmann teaches:

In Reference to Claim 1

An air cooling dry vacuum pump (1), comprising; rotors (7,13) to be rotated by a motor (11), a driving source of rotation (11), in a casing (4,5) having an inlet (2) and an outlet (3) for the fluid, said casing (4,5) being provided with air supplying means (23) at one end in an axial direction thereof, and formed into a duplex tube structure with an inner tube (20) and an outer tube (3) therearound, and that an air duct (35), through which cooling air flows as being supplied by the air supplying means (23), along the axial direction between the inner tube and

Art Unit: 4122

the outer tube.



In Reference to Claim 2

The air-cooling dry vacuum pump (1) according to claim 1 (see claim 1 rejection above), wherein said air duct (35, Fig. 4) is provided along the axial direction corresponding to a heat generating member including the motor (11), rotational force transmission parts such as a rotating speed up gear for transmission of a driving force from the motor to the rotor, a timing gear and the like, a roller bearing support rotatably a shaft of the rotor (13), the rotors engaging with each other, and heat generated from the heat generating member

flows conventionally with cooking air flowing through the air duct by the air supplying means (23) for heat exchange.

In Reference to Claim 3

The air-cooling dry vacuum pump according to claim 1 (see claim 1 rejection above), wherein said air supplying means is a ventilation fan or a suction fan (23).

In Reference to Claim 6

The air-cooling vacuum pump (1) according to claim 1 (see claim 1 rejection above), wherein said rotor (13) is mounted on a rotor shaft (17), one end of which is rotatably supported by a first roller bearing (18), placed at the timing gear section as being fixed on one side of the casing.

In Reference to Claim 7

The air cooling dry vacuum pump (1) according to claim 1 (see claim 1 rejection above), wherein said rotor (7) is mounted on the rotor shaft (17) so as to approach to an other side of the casing (4), which is provided with the inlet (2) and is sealed, and the other end of the rotor shaft (17) is supported rotatably by a second roller bearing (18) placed at a support cylinder with a small diameter, which is fixed on the one side of the casing.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 4122

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

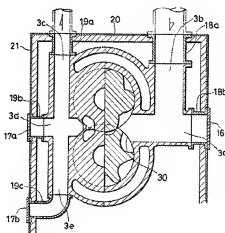
2. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent No. 6,019,581 to von Schulz-Hausmann et al. (Hausmann) in view of US Patent No. 4,767,284 to Shiinoki et al. (Shiinoki).

In Reference to Claim 8

Hausmann teaches the air-cooling dry vacuum pump according to claim 1 (see claim 1 rejection above) but fails to teach an outer wall of at least one of the said casing, the motor and the air supplying means covered with a sound absorbing material (20, Shiinoki) which is taught by Shiinoki.

FIG. 5



It would have been obvious to one skilled in the art at the time of the invention to incorporate sound-absorbing material disclosed by Shiinoki to the vacuum pump system of Hausmann to reduce noise and vibrations due to noise.

Allowable Subject Matter

6. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

In Reference to Claim 4

Claim 4 would be allowable if it was rewritten in independent form because it further limits the invention by disclosing a rotating speed up gear section for receiving the rotating speed and a timing gear section for receiving the timing gear structure.

In Reference to Claim 5

Claim 5 would be allowable if it was rewritten in independent form because it further limits the invention by disclosing a partition wall separating the rotating speed up gear section and the timing gear section and having communication between the two sections through a path as to be capable of circulating lubrication oil.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sevan Mehrabian whose telephone number is (571) 270-5058. The examiner can normally be reached on Monday through Friday, 8:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Bomberg can be reached on (571) 272-4922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SM

/Mark A. Robinson/
Supervisory Patent Examiner, Art Unit 4122